

Title (en)

METHOD AND APPARATUS FOR DETERMINING COEFFICIENTS OF A NONLINEAR COLOR TRANSFORM, METHOD AND APPARATUS FOR APPLYING A NONLINEAR COLOR TRANSFORM TO DIGITAL IMAGES

Title (de)

VERFAHREN UND VORRICHTUNG ZUR BESTIMMUNG DER KOEFFIZIENTEN EINER NICHTLINEAREN FARBTRANSFORMATION, VERFAHREN UND VORRICHTUNG ZUM ANWENDEN EINER NICHTLINEAREN FARBTRANSFORMATION AUF DIGITALEN BILDERN

Title (fr)

PROCÉDÉ ET APPAREIL POUR DÉTERMINER DES COEFFICIENTS D'UNE TRANSFORMÉE DE COULEUR NON LINÉAIRE, PROCÉDÉ ET APPAREIL PERMETTANT D'APPLIQUER UNE TRANSFORMATION DE COULEUR NON LINÉAIRE À DES IMAGES NUMÉRIQUES

Publication

EP 3179710 A1 20170614 (EN)

Application

EP 15306974 A 20151210

Priority

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Abstract (en)

For determining coefficients of a nonlinear color transform from a three channel digital image depicting a color reference chart of known properties, it is disclosed to expand three dimensional pixel values of the image into n dimensional values with $n > 3$ by appending products of components of the pixel values as additional dimensions, and to derive, from the n dimensional values and the known properties, coefficients of a $3 \times n$ transform matrix by a Least Squares Fitting evaluation. A nine dimensional transform, a 19 dimensional transform, and a special nine dimensional transform are disclosed.

IPC 8 full level

H04N 1/60 (2006.01); **H04N 9/67** (2006.01)

CPC (source: EP)

H04N 1/603 (2013.01); **H04N 23/85** (2023.01)

Citation (applicant)

- US 7286598 B2 20071023 - KOCHALE AXEL [DE], et al
- EP 1484760 A1 20041208 - THOMSON BRANDT GMBH [DE]
- GUOWEI HONG ET AL.: "Color Research & Application", vol. 26, February 2001, WILEY, article "A study of digital camera colorimetric characterization based on polynomial modeling", pages: 76 - 84

Citation (search report)

- [X1] US 2013342557 A1 20131226 - FINLAYSON GRAHAM D [GB]
- [X1] EP 1032194 A2 20000830 - EASTMAN KODAK CO [US]
- [I] US 2012056910 A1 20120308 - SAFAEE-RAD REZA [CA], et al

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